

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A membrane filtration device, for withdrawing permeate from a multicomponent liquid substrate, said membrane device comprising:

a multiplicity of hollow fiber membranes, or fibers, said fibers together having a surface area  $>1 \text{ m}^2$ , said fibers being swayable in said substrate and each fiber having a length  $>0.5$  meter;

a first ~~header~~ solid body and a second ~~header~~ solid body in spaced-apart relationship;

said first ~~header~~ solid body and said second ~~header~~ solid body having opposed ends of each fiber sealingly secured therein, all open ends of said fibers open to a permeate-discharging face of one or both ~~headers~~ solid bodies;

permeate collection means to collect said permeate, sealingly connected in open fluid communication with the or each permeate-discharging face;

wherein,

said fibers, said ~~headers~~ solid bodies and said permeate collection means together forming an assembly with ends of individual fibers potted in ~~closely a spaced-apart relationship in cured resin~~;

the assembly is adapted to be used with said first ~~header~~ solid body being upper and disposed in vertically spaced-apart relationship above said second ~~header~~ solid body, with opposed faces at a fixed distance and the fibers oriented generally vertically;

each of said fibers has a length from 0.1% to less than 5% greater than said fixed distance so as to permit restricted displacement of an intermediate portion of each fiber, independently of the movement of another fiber; and,



the fibers, the ~~headers~~ solid bodies and the permeate collection means are submersible below the surface of the substrate.

2. (Cancelled)

3. (Previously Presented) The membrane filtration device of claim 1 wherein the permeate collection means has a fitting, port, or outlet for connecting to a permeate pipe, duct, conduit or manifold adapted to extend from the permeate collection means to a point above the surface of the substrate.

4. (Previously Presented) The membrane filtration device of claim 1 wherein the permeate collection means is a header enclosure, collection pan, permeate pan or cap covering the or each permeate discharging face.

5. (Original)                      A membrane filtration system comprising  
   (a) a tank for holding a substrate at ambient pressure during filtration;  
   (b) a membrane filtration device according to claim 1 immersed below the surface of the substrate;  
   (c) an aeration system for producing bubbles in the substrate which contact the fibers; and,  
   (d) a source of suction in fluid communication with the membrane filtration device.

6. (Original)                      The membrane filtration system of claim 5 further comprising a backwashing system for backwashing the membrane filtration device with a liquid.

7. (Original)                      The membrane filtration system of claim 6 wherein the liquid is permeate.

8. (Previously Presented) The membrane filtration system of claim 5 wherein the source of suction communicates with the membrane filtration device through a pipe,



duct, conduit, or manifold extending from the permeate collection means of the membrane filtration device to a point above the surface of the substrate.

9. (New)                      An apparatus for withdrawing filtered permeate from a substrate comprising:

    a reservoir containing non-pressurized substrate;

    an assembly having,

        an upper solid body and a lower solid body, an upper face of the lower solid body being separated from a lower face of the upper solid body by a distance;

        a plurality of hollow fiber filtering membranes disposed generally vertically between the solid bodies, the ends of the membranes secured in the solid bodies, the membranes sealed in the solid bodies in a manner that prevents non-pressurized substrate from contaminating the permeate, the membranes each having a length between the solid bodies at least 1.001 times the distance but not longer than 1.05 times the distance, the membranes secured in the solid bodies such that each of the membranes may move against one or more others of the membranes;

        an enclosure sealed to one of the solid bodies in a manner that the enclosure and one of the solid bodies define a cavity and prevent non-pressurized substrate from entering the cavity, the enclosure being immersible in the non-pressurized substrate;

        a permeate port in communication with the cavity; and,

        the lumen of each membrane in fluid communication with the port via the cavity;

        a source of suction in communication with lumens of the membranes via the permeate port and adapted to withdraw permeate from the non-pressurized substrate in the reservoir; and,

        a gas distribution system adapted to introduce a gas into the substrate in a manner that produces bubbles which contact the membranes.

10. (New)                      The apparatus of claim 9 wherein both solid bodies are immersible in the substrate.



11. (New)                      The apparatus of claim 9 further comprising a permeate pipe in communication with the permeate port and the source of suction, the permeate pipe extending from a point of connection to the permeate port below the surface of the substrate to a point above the surface of the substrate.

12. (New)                      The apparatus of claim 9 further comprising a backwashing system for backwashing the membranes with a liquid comprising permeate.